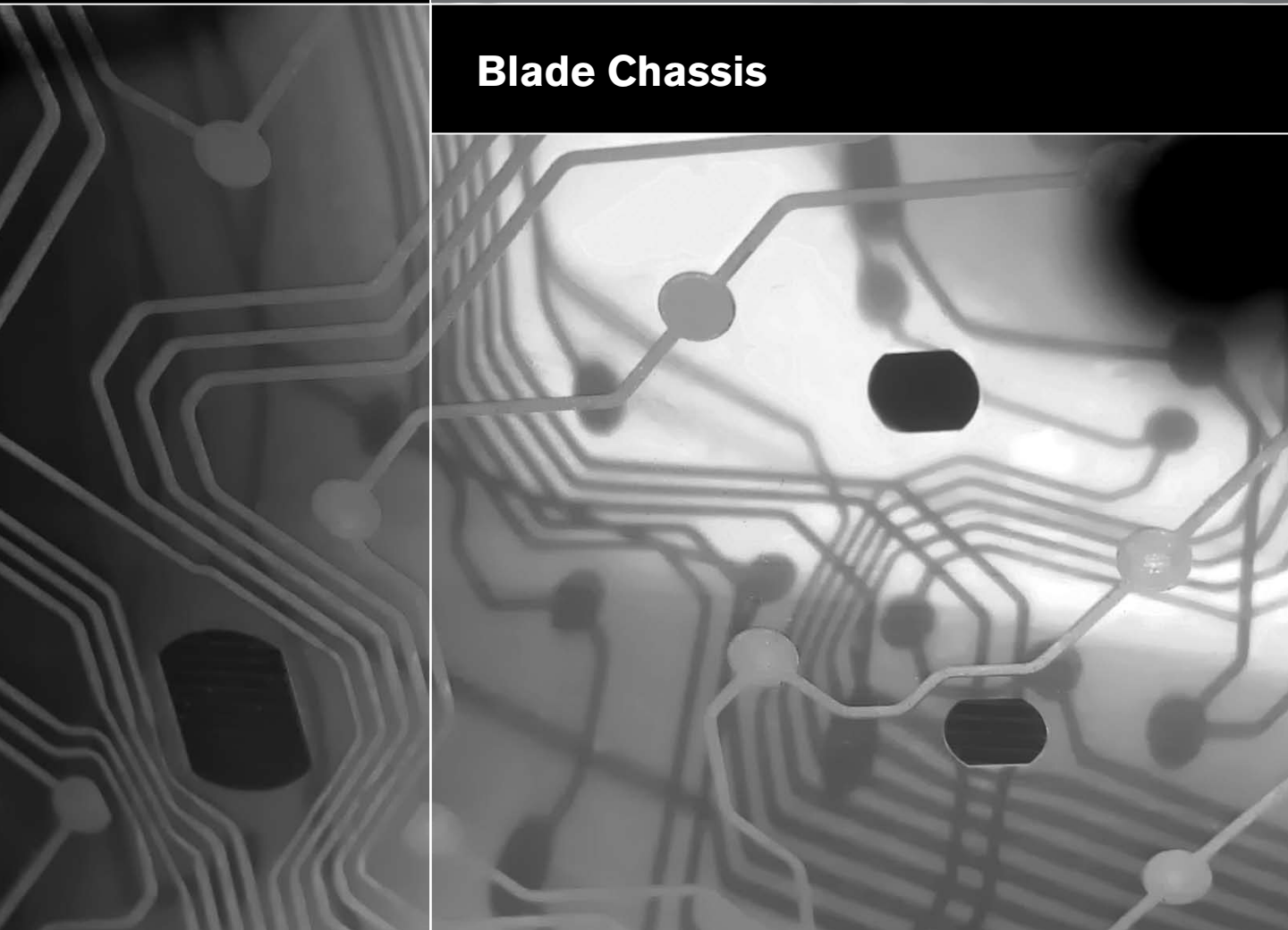
Avocent®

Technical Bulletin

DSView® 3 Software Plug-in

Blade Chassis



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DSView 3 Software Plug-in for Blade Chassis

The DSView® 3 management software plug-in for Blade Chassis allows you to access multi-vendor blade chassis and blades from the DSView 3 software. You can launch a KVM session to any managed blade from a single point of access.

The information provided here is supplemental to the DSView 3 help and the documentation included with the blade chassis. For detailed information on a particular functionality, please refer to the corresponding documentation.

System Requirements

DSView 3 management software requirements

The Blade Chassis plug-in is pre-installed in DSView 3 software version 3.5 or later.

Supported Avocent DSR switches

The following Avocent DSR® switch models support KVM sessions to a blade server:

- 1010, 1020, 1021, 1022, 1024, 1030, 1031, 2010, 2020, 2030, 2035, 4010, 4020, 4030, 8020, 8030, 8035

Supported blades chassis

- IBM® blade chassis: BladeCenter (14 blades), BladeCenter T (8 blades), BladeCenter H (14 blades) or BladeCenter HT (12 blades)
- Dell™ blade chassis: PowerEdge 1855 (10 blades) or PowerEdge 1955 (10 blades)
- HP® blade chassis: BladeSystem c-Class (16 blades) or BladeSystem p-Class (16 blades)
- Generic blade chassis

Glossary

Blade server chassis, blade server or blade chassis

A server architecture that houses multiple server modules (blades) in a single chassis. The self-standing or rack mounted blade chassis provides the power supply, and each blade has its own CPU, memory and hard drive.

Blade or blade card

One component in a system that is designed to accept some number of components (blades). Blades can be individual servers or clients that plug in to a single cabinet or individual port cards that add connectivity to a switch.

NOTE: For more terms and definitions related to your blade chassis, see the documentation included with the the blade chassis. For terms and definitions related to the DSView 3 software, see the DSView 3 help (keyword: glossary).

System Configuration

Connect a supported blade chassis to a DSR switch on a network accessible by the DSView 3 software.

- For a Dell blade chassis, connect the analog KVM card to the ACI port on the DSR switch. This single connection allows KVM sessions to all blades on the blade chassis.

NOTE: A connection to a digital KVM card on the Dell blade chassis is not supported.

- For an IBM blade chassis, connect the KVM card to a server port on the DSR switch through an Avocent PS/2 IQ module. This single connection allows KVM sessions to all blades on the blade chassis.
- For an HP blade chassis, connect each blade to a server port on the DSR switch through an HP module. A connection is required for each blade to which you want to launch a KVM session from the DSView 3 software.

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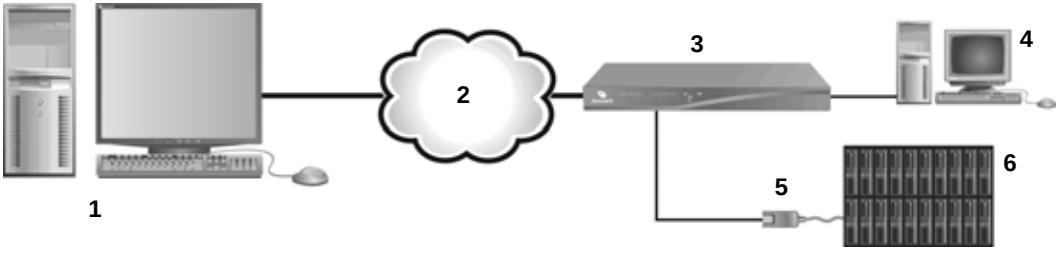


Figure 1: DSView 3 Software System with a Connected Blade Chassis - IBM BladeCenter Shown

Table 1: System Configuration Descriptions

Number	Description	Number	Description
1	DSView 3 Software System	**4**	OSCAR® Graphical User Interface
2	TCP/IP Connection	**5**	IQ Module
3	DSR Switch	**6**	Blade Chassis (IBM BladeCenter Shown)

Adding a Blade Chassis to the DSView 3 Software

Adding a Dell blade chassis

Use the Add Unit Wizard to add a DSR switch connected to the Dell blade chassis.

To add a DSR switch with an attached Dell blade chassis to the DSView 3 software:

1. In the DSView 3 software, click the *Units* tab, then click *Appliances* in the side navigation bar.
2. Click *Add*. The Add Appliance Wizard opens. Click *Next*.
3. The Select Add Unit Procedure window opens. Click *Add a single appliance*, then click *Next*.
4. The Select Appliance Type window opens. Select the DSR switch model from the product list, then click *Next*.
5. The Select Address Configuration of Appliance window opens.

   If the DSR switch does not have an address, click *No, the <DSR switch> does not have an address*. Click *Next*.

   The Configure Appliance Network Settings window allows you to configure DSR switch network settings from DSView 3 software. Type the IP address and subnet mask for the managed appliance. Optionally, type a gateway. Click *Next*.

   -or-

   If the managed appliance has an address, click *Yes, the <DSR switch> does have an address* and either type the address or the fully qualified domain name for the DSR switch. Click *Next*.
6. The Select Options window will open.

   Enable the *Enable secure mode* checkbox if you want the DSR switch to only be accessible by this DSView 3 software system. In non-secure mode, the DSR switch may be added to multiple DSView 3 software systems.

   -and/or-

   Enable the *Allow target devices with the same name to be merged into a single target device* checkbox if you wish to merge a Dell Modular Server Enclosure in the DSView 3 software database.

   -and/or-

   Under *Allow target devices that contain default names to be added for these type of connections*, you may enable the *KVM* checkbox. Any KVM-capable blades that contain default names in the blade chassis switch and support the enabled connection type are added to the DSView 3 software database.
7. The Configure Cascade Switches window opens. The Appliance Port column displays the DSR port number and the Cascade Switch Type column displays the type of Dell blade chassis connected to the port. Complete the following steps for each row:

a. Type a unique name for each blade chassis in the Name column.

b. (Optional) If two or more rows of a multi-user blade chassis are discovered, you can merge the rows by selecting the checkboxes of those rows and clicking *Merge*. To undo the merge, click the row of the merged switch and click *Split*.

8. The Completed Successful window opens. Click *Finish*.

The DSR switch and its attached Dell blade chassis and blades are available in the Units View windows.

Adding an IBM or generic blade chassis

NOTE: The DSR switch to which the IBM or generic blade chassis is attached must already be added to the DSView 3 software. See the DSView 3 help (keywords: Adding Units).

To add an IBM or generic blade chassis to the DSView 3 software:

1. In the DSView 3 software, click the *Units* tab, then click *Blade Chassis* in the side navigation bar.
2. Click *Add*. The Add Unit Wizard will open. Click *Next*. The Select Unit Type window opens. Select the appropriate type of IBM or generic blade chassis from the list and click *Next*.

   -or-

   If an IBM blade chassis has already been added, you can click *IBM BladeCenter* or *Generic* in the side navigation bar, then click *Add*. Select the appropriate type of IBM or generic blade chassis from the list and click *Next*.

NOTE: If you click *Add* from any Units View window not described in steps 1 - 2, the Add Unit Wizard will not include options for adding a blade chassis.

3. The Enter Blade Chassis Properties window opens.
   a. Enter the name of the blade chassis in the Name fields.
   b. Enter the IP address or URL of the blade chassis in the IP address field. This address will be used to launch sessions to the management module.
4. The Select Options window opens.

   Enable the *Allow target devices with the same name to be merged into a single target device* checkbox if you wish to merge a blade that has multiple connections into a single blade in the DSView 3 software database.

   -and/or-

   Under *Allow target devices that contain default names to be added for these type of connections*, you may enable the *KVM* checkbox. Any KVM-capable blades that contain default names in the blade chassis switch and support the enabled connection type are added to the DSView 3 software database.

5. The Completed Successful window opens. Click *Finish*.

Use the Merge Chassis Wizard to associate each blade with a DSR switch port.

To use the Merge Chassis Wizard:

1. In a Units View window containing the blade chassis you want to merge, click on the name of the blade chassis. The Unit Overview window opens.
2. Click the *Merge Chassis* name or icon.
3. The Merge Chassis Wizard opens. Click *Next*.
4. From the menu, select the DSR switch from which you want to select a port. Click *Next*.
5. From the menu, select the DSR switch port that you want to merge with the blade chassis. Click *Next*.
6. The Completed Successful window opens.

   If you wish to merge another blade, click *Back* to repeat steps 4- 5. You must complete the Merge Chassis Wizard for each blade you want to be accessible from the DSView 3 software.
   -or-
   Click *Finish* to close the window.

Adding an HP blade chassis

NOTE: The DSR switch to which the HP blade chassis is attached must already be added to the DSView 3 software. See the DSView 3 help (keywords: Adding Units).

To add an HP blade chassis to the DSView 3 software:

1. In the DSView 3 software, click the *Units* tab, then click *Blade Chassis* in the side navigation bar.
2. Click *Add*. The Add Unit Wizard will open. Click *Next*. The Select Unit Type window opens. Select the appropriate type of HP blade chassis from the list and click *Next*.

   -or-

   If an HP blade chassis has already been added, you can click *HP BladeSystem* in the side navigation bar, then click *Add*. Select the appropriate type of HP BladeSystem blade chassis from the list and click *Next*.

NOTE: If you click *Add* from any Units View window not described in steps 1 - 2, the Add Unit Wizard will not include options for adding a blade chassis.

3. The Enter Blade Chassis Properties window opens.
   a. Enter the name of the HP blade chassis in the Name field.
   b. Enter the IP address or URL of the HP blade chassis in the IP address field. This address will be used to launch sessions to the management module.
4. The Select Options window opens.

Enable the *Allow target devices with the same name to be merged into a single target device* checkbox if you wish to merge a blade that has multiple connections into a single blade in the DSView 3 software database.

-and/-or-

Under *Allow target devices that contain default names to be added for these type of connections*, you may enable the *KVM* checkbox. Any KVM-capable KVM blades that contain default names in the blade chassis switch and support the enabled connection type are added to the DSView 3 software database.

5. The Completed Successful window opens. Click *Finish*.

Use the Attach Device Wizard to associate each blade with a DSR switch port.

To use the Attach Device Wizard:

1. In the DSView 3 software, click the *Units* tab, then click *Blade Chassis* in the side navigation bar.
2. (If Topology view is not already enabled) Click *Topology*. The Topology checkbox appears pressed and the Port column is added to the display.
3. Click the arrow next to the HP blade chassis.
4. In the Action field of the port where you want to attach the blade, click *Attach Device*. The Attach Device Wizard opens. Click *Next*.
5. The Select a Method for Attachment window opens. Select *Browse for an Existing Target Device* and then click *Next*.
6. The Browse for an Existing Target Device window lists all blades sorted alphabetically. To tailor the list, enter a valid filter string and click *Filter*. Select a target device from the list and then click *Next*.
7. The Completed Successful window opens. Click *Finish*.
8. Repeat steps 1- 7 for each HP blade you want to be able to access and control from the DSView 3 software.

The DSR switch and its attached HP blade chassis and blades are available in the Units View windows.

Units View

The added blade chassis and blades are available in the Units View windows in the DSView 3 software. The blades are also available as target devices.

To access the Blade Chassis Units View windows:

In the DSView 3 software, click the *Units* tab. Complete one of the following steps to access a Units View window for blade chassis and/or blades:

- Click *Blade Chassis* in the side navigation bar.

Click *All* to view all blade chassis and connected blades.
-or-
Click *Dell PowerEdge*, *IBM BladeCenter*, *HP BladeSystem* or *Generic* to only display units of the respective type.

- Click *Target Devices* in the side navigation bar to view all target devices, including blades.
- To enable Topology view, click *Topology.* Click the arrow next to blade chassis to expand the list and display all connected blades.

NOTE: For more information about navigation and actions that can be performed from Units View windows, see the DSView 3 help (keywords: units view windows).

Common unit properties and settings

From the Units View windows, you can manage properties, connections, session files and a variety of other functions for any unit, including blade chassis and blades. For detailed information about common unit properties and settings, see DSView 3 help.

NOTE: Some unit operations described in the DSView 3 help are not supported for blade chassis and blades. Typically, if an operation is not supported, the corresponding buttons and links will not be visible when the blade chassis or blades are selected.

Access Rights

DSView 3 software administrators may assign unit access rights for each blade. Unit access rights allow administrators to specify what users or user groups may perform certain actions for a unit type. See the DSView 3 help (keywords: unit access rights).

Managing IBM or HP Blade Cards

The DSView 3 software automatically detects the number of blade cards that a blade chassis supports. A target device name and port for each slot on the blade chassis are visible in the Units View windows, even if a blade is not physically in the slot. If you have empty slots for blades in an IBM or HP blade chassis, you can remove the associated blade name from the discovered blades list. If you add a blade to an empty slot on a blade chassis, you can add the blade back in the discovered blades list.

To manage IBM or HP blade cards:

1. In a Units View window containing the blade chassis you want to access, click on the name of the blade chassis. The Unit Overview window opens.
2. Click *Manage Blade Cards* in the side navigation bar.
3. To remove blades from the discovered blades list, select the blades from the right column and click *Remove*. Removed blades are not displayed in the Units View windows.
   -or-

To add blades to the discovered blades lists, select the blades from the left column and click *Add*. Added blades are displayed in the Units View windows.

4. Click *Save*.

KVM Sessions through the DSView 3 Software

You can open a KVM session to blades from the DSView 3 software.

NOTE: Virtual media sessions to blades are not supported.

To open a KVM session from the DSView 3 Explorer:

In a Units View window containing the blade you want to access, click the *KVM Session* link in the Action column of the blade you want to view.

The Video Viewer launches in a new window.

To open a KVM session from the Unit Overview window:

1. In a Units View window containing the blade you want to access, click on the name of the blade. The Unit Overview window opens.
2. Click the *KVM Session* name or icon.

   The Video Viewer launches in a new window.

NOTE: For more information about KVM sessions, see the DSView 3 help (keywords: unit sessions).

KVM switch key sequence

Dell and IBM blade chassis allow users to enter a key sequence to switch to another blade from an open KVM session. To prevent unauthorized access to blades, the preset Dell and IBM key sequence is disabled when a KVM session is opened from the DSView 3 software. DSView 3 software administrators can change the KVM switch sequence configured on the blade chassis.

To configure a disabled KVM switch sequence:

1. In a Units View window containing the blade chassis you want to access, click on the name of the blade chassis. The Unit Overview window opens.
2. Click *KVM Switch Sequence* in the side navigation bar.
3. The right column contains the preset KVM switch key sequence for the selected blade chassis. This key sequence is blocked to prevent the user from switching to another blade during a KVM session.

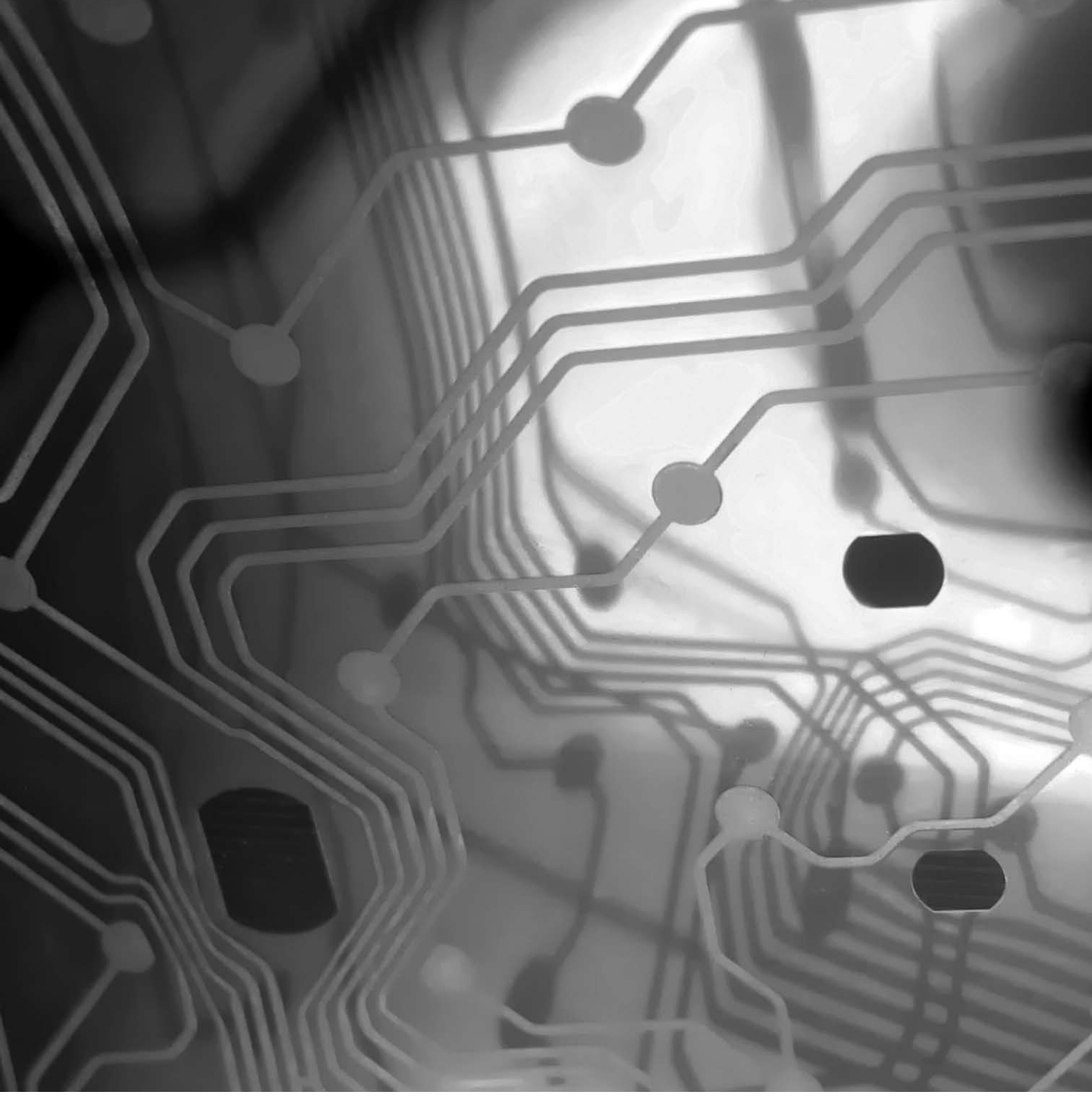
   If a user-defined key sequence is configured on the blade chassis, block this key sequence by moving the appropriate keys to the right column.

   To add keys to the blocked key sequence list, select the keys from the left column and click *Add* to move them to right column.

-or-

To remove keys from the blocked key sequence list, select the keys from the right column and click *Remove* to move them to left column.

4. Click *Save*, then click *Close*.



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